Title: European Universities and Research Information

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Abstract:

European Universities are transnational alliances of universities based upon a co-envisioned long-term strategy focused on sustainability, excellence and European values. They offer student-centred curricula jointly delivered across inter-university campuses, where diverse student bodies can build their programmes and experience mobility at all levels of study and also focuses on the teacher, researcher and external partner collaborations (https://education.ec.europa.eu/education-levels/higher-education/european-universities-initiative). There are currently 50 European Universities funded through Erasmus+, which include around 400 universities from over 30 countries. A typical European University contains up to 10 partner universities from the same number of countries spread across the EU member states and additional countries (e.g. UK, Norway, Iceland, Serbia, Turkey); has a specific theme as its backbone; works on specific goals related to it; collaborates in the fields of education and research, including setting up of joint study programmes and enhancing student, teacher and researcher mobility.

Depending on the goals set by each European University, specific needs arise related to the information infrastructure of the alliance as a whole. Namely, new information systems are often needed to fulfil the goals and smooth the processes within the alliance. Some alliances have recognised these needs and have proposed the creation of “virtual campuses”, a form of a joint information system designed to keep the processes inside the alliance going. A number of challenges arise regarding the architecture and implementation of such a system in the real world. In this presentation, we set up a stage for such a system, address those challenges and show the advance in building the system of a particular alliance – UNIC, the European University of Cities in Post-Industrial Transition (https://unic.eu/en).

Analysing the projects of different European Universities while considering all the specific differentiations, an unsurprising fact emerges – most of them have common goals, which can translate into the following:

- Increase student mobility, physical but primarily virtual, by enabling the students to enrol in a particular course offered by any of the partner universities
- Support student identification by providing a way for them to present themselves as students of the particular alliance (i.e., a form of student card)
- Create and implement joint study programmes
- Promote scientific output, especially related to open science
- Increase teacher and researcher networking.

These goals represent what a virtual campus of a European University should provide, the means to help all of these processes run as smoothly as possible. In other words, those should be the main functionalities of a successful virtual campus. However, given the limited budgeting and capabilities of
any European University, the virtual campus should be built with practicality in mind, limiting the need to interactions as much as possible. Therefore, our idea was to use many of existing and available systems and resources.

In our presentation, we will show the architecture of virtual campus (depicted in figures 1 and 2) and some of its functionalities, but we will focus on the part of virtual campus related to promoting open science and researcher networking. We will show the value of common infractures and systems related to research activities, namely ORCID and OpenAIRE, and some challenges related to it.

![Diagram of UNIC Central Campus](image1)

**Figure 1:** The schema of UNIC Central Campus

![Diagram of Local components of UNIC Virtual Campus](image2)

**Figure 2:** Local components of UNIC Virtual Campus

The value of our work is bi-directional. We rely heavily on data exchange and single-point of data entry. Therefore, to obtain the data about researchers, we rely on ORCID (researcher can not change their data in the virtual campus). So, by focusing the researchers on using ORCID as the registration method for virtual campus, we are pushing them to be active on that platform and have a clear data there. Also, the research outputs are gathered (and will be refreshed regularly) from OpenAIRE and not entered manually in the virtual campus database. That way, we are pushing the universities towards OpenAIRE.
EC is continuing to push the formation of new alliances and to provide financing for all of them. Our work on virtual campuses continues, as other alliances have already expressed the interest in participating in our concept. Since the important part of that concept is related to research information, we intent to continue to report on this topic to euroCRIS members.